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We recycle. You can, too! Share Xplor with friends.

ON THE COVER

Northern Cardinal by Noppadol Paothong

CEET COULT OF THE CHANCE TO DISCOVER MATURE AT THESE EVIN EVENTS

Take to the woods during the two-part SQUIRREL HUNTING WORKSHOP.

Burr Oak Woods Conservation Nature Center in Blue Springs. January 9, 9 a.m.—1:30 p.m. and January 23, 9 a.m.—3 p.m. Ages 10 and older. Youth must be accompanied by an adult. Register at 816-228-3766.

Learn what it takes to keep nature center reptiles, amphibians, and fish happy at FEEDING FRENZY.

Cape Girardeau Conservation Nature Center. January 14, 1–2:30 p.m. For more information, call 573-290-5218. Leopard frog

Reel in a rainbow at a lake near you during WINTER TROUT FISHING. Each winter, the Conservation Department stocks more than 70,000 rainbow trout in lakes across the state.

Get hooked at on.mo.gov/1k87SOk.

llustration by Joseph R. Tomelleri

Learn upland hunting basics at the YOUTH/WOMEN PHEASANT CLINIC AND HUNT. August A. Busch Shooting Range and Outdoor Education Center. Clinic on February 25, 6–8:30 p.m.; Women's hunt February 27; Youth hunt March 5. Ages 11 and older. Youth must be accompanied by an adult. Register at 636-441-4554.

There is plenty going on outdoors, even in winter. Watch for these natural events around the following dates.

JANUARY 2

White-tailed deer bucks begin to shed antlers.

JANUARY 12

Look for signs of deer and rabbits feeding on saplings.

JANUARY 22

Peak numbers of bald eagles gather this month near lakes, rivers, and wetlands.

FEBRUARY 3

Cedar waxwings flock to feed on cedar berries and other fleshy fruits.

FEBRUARY 20

Coyotes are seeking mates. Listen for howling.

FEBRUARY 25

Listen for chorus frogs.
Their call sounds like
a thumbnail scratched
along a comb.



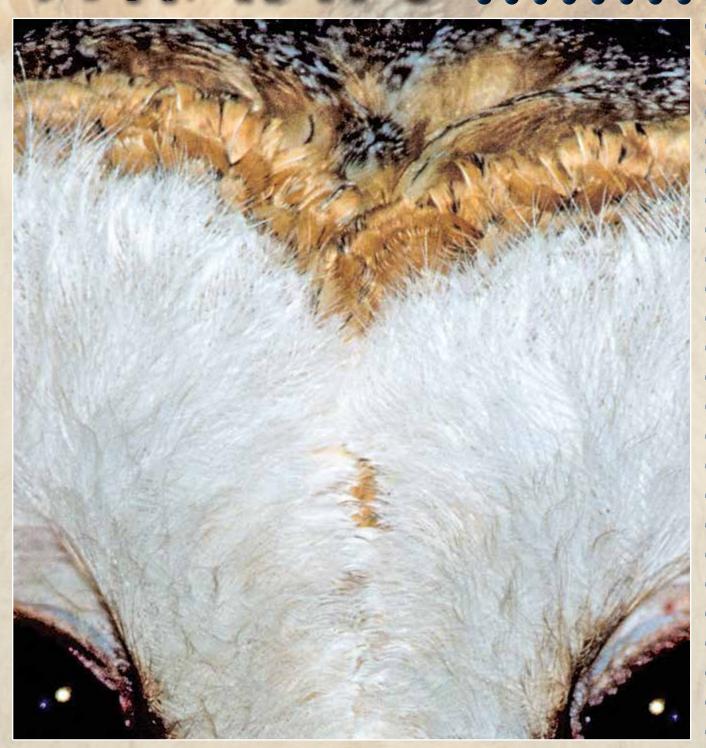
Meet both a golden and bald eagle at DISCOVER MATURE: EAGLES.

Twin Pines Conservation Education Center in Winona. January 29, 11 a.m., 1 p.m., and 6 p.m. Register at 573-325-1381.

Looking for more ways to have fun outside? Find out about Discover Nature programs in your area at **mdc.mo.gov/events**.

DON'T KNOW?

Jump to the back cover to find out.



- 1 I'm wild about you, Valentine.
- 2 If you look into my eyes, you'll see my heart.

•••••••••

- 3 I stay up all night.
- 4 I hunt by sound as well as by sight.







othing brightens a gray winter day faster than watching a flock of colorful birds gobble seeds at a bird feeder. Providing a feast for your feathered friends is as easy as scattering birdseed on the ground around your house. If you want something a little fancier, you can buy a feeder or make one yourself (see Page 11). Place the feeder near a window, preferably close to bushes or trees so birds have a place to escape to if the neighborhood cat comes prowling. Once the table is set, grab a pair of binoculars and sit where you can watch the feathered feeding frenzy.

But First, Make This Field Guide



- 1 Cut out the next two pages along the dotted lines.
- 2 Fold each cut-out down the middle.
- 3 Stack the cut-outs so the pages are in numerical order.
- 4 Staple the cut-outs together along the middle between pages 8 and 9.
- 5 Sit with this field guide where you can see birds.

mdc.mo.gov

You Discover BACKYARD BIRDS



A Mini Field Guide to the Feathered Foragers at Your Feeder

16

Frequent Fliers

Pine Siskin

Pine siskins show up in Missouri when seeds get scarce in northern forests where the birds usually live.



American Goldfinch

American goldfinches are active, acrobatic little birds that sometimes hang upside down to feed.



Red-Bellied Woodpecker

Red-bellied woodpeckers aren't well-named. Although the red on their heads stands out, the blush on their bellies is hard to see.



Dried kernels of corn are prized by blue jays. Cracked corn is eaten by doves and sparrows.

Peanuts are treasured by nuthatches, woodpeckers, titmice, and blue jays.

Peanut butter and suet (animal fat) attracts woodpeckers, chickadees, and nuthatches.

What if you forget to fill your feeder? Don't sweat it. Birds will find food elsewhere. But to keep your feathered friends coming back, keep the food a-coming.



14

Treats for Tweets

Birds of a feather may flock together, but different birds have different tastes. Offer several of these treats to attract a variety of tweets to your bird buffet.

Black-oil sunflower seeds attract the widest variety of birds. Cardinals especially love 'em.



Doves, juncos, and other ground-feeding birds prefer millet.



Niger seed (also called thistle) attracts finches and pine siskins.

Many kinds of birds may visit your feeder. Here are a few others to watch for.

European Starling

European starlings were brought to New York City from Europe in the 1890s. They are now one of the most common birds in the U.S.



House Sparrow

House sparrows have a pecking order. Males with the biggest black patches on their throats get to eat first.



Cooper's Hawk

Cooper's hawks sometimes swoop in to pluck songbirds from feeders. Don't despair. Hawks have to eat, too.



15

orthern Cardinal

2



Bird Feeder Faves: Sunflower seeds **Wild Menu:** Seeds, berries, small insects

Female cardinals are the same size and shape as males but aren't as colorful.

In the spring, cardinals sometimes attack their reflections in windows, believing the reflection is another bird invading their space.

Cardinals are wary birds, often flicking their tails and whistling a sharp "chip" to show they're worried.

lite-Crowned Sparrow



Bird Feeder Faves: Millet, thistle, cracked corn **Wild Menu:** Weed and grass seeds, insects, berries

Sparrows with the brightest colors on their heads get to eat first. Duller birds have to wait their turn. White-crowned sparrows often hop backward then forward, dragging both feet on the ground. This isn't some funky dance. It helps turn over leaves to expose hidden seeds.

Jouse Finch



Bird Feeder Faves: Sunflower seeds, thistle, millet **Wild Menu:** Seeds, berries

Flocks of finches may stay at feeders a long time, eating tons of seeds and keeping other birds from taking a turn.

Purple finches look a lot like house finches. To tell the birds apart, look at the streaks on their sides. Male house finches have brown streaks; male purple finches have rosy streaks.

Male house finches come in many shades, from yellow to orange to red. They get their color from pigments in the wild seeds they eat. Female house finches are brown.



Bird Feeder Faves: Peanuts, sunflower seeds, cracked corn

Wild Menu: Acorns, insects, berries, small animals, bird eggs

These "bully birds" often shriek "Thief! Thief!" before swooping in to a feeder. The call scares away other birds, leaving the jay to have the food all to itself.

You can tell a blue jay's mood by looking at the crest of feathers on top of its head. A happy jay keeps its crest down.
When a jay is mad, its crest comes up.

The black band on a blue jay's chest varies from one bird to another. It may help jays recognize friends, family, and strangers. Can you tell the jays apart at your feeder?

12

hickadee



Bird Feeder Faves: Sunflower seeds, peanuts, suet **Wild Menu:** Insects, spiders

When a chickadee spots danger, it gives an alarm call to warn other birds: chickadee-dee-dee. The more dees, the bigger the danger.

Chickadees are bold, curious birds. With lots of patience and a steady hand, you can coax a chickadee to eat seeds from your palm.

Chickadees hide most of the seeds they take for later use. Even with a brain smaller than a raisin, the little birds can remember the precise location of thousands of seeds.

Dark-Eyed Junco



Bird Feeder Faves: Millet, sunflower seeds, cracked corn

Wild Menu: Mostly weed seeds but also a few insects

The boss bird in a flock of juncos feeds in the center where it's safest. You might see juncos lunge at each other and flick open their tails. This is how they figure out who is in charge.

Juncos often scratch around in feeders, kicking seed over the edge to birds feeding on the ground below.

Juncos are nicknamed "snowbirds" because they appear in Missouri during late fall and winter. In spring, they migrate north to nest.

X

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Mourning Dove



Bird Feeder Faves: Cracked corn, millet, sunflower seeds **Wild Menu:** Weed and grass seeds

When a mourning dove takes flight, its wings make a whistling sound.

Doves quickly gobble seeds, storing them in a pouch in their throat called a crop. Once a dove has topped off its crop, it flies to a safe perch to digest the meal. One dove had more than 17,000 grass seeds in its crop!

my Woodpeck



Bird Feeder Faves: Suet, peanuts, sunflower seeds **Wild Menu:** Insects, acorns

When a downy woodpecker is angry at another bird, it fans out its tail and swings its beak like a sword.

Male downies keep females from feeding in the best spots. When males arrive at a feeder, females often fly away to hide in a nearby tree. Males aren't total bullies, though. If a male spots danger when he's alone, he keeps quiet. When he's with a female, he gives an alarm call to alert her of the threat.

11

ted Titmouse

6

Bird Feeder Faves: Sunflower seeds, peanuts **Wild Menu:** Mainly insects in summer; acorns and seeds in fall and winter

Titmice flit down to a feeder, grab the largest seed they see, and dash away. At a safe perch, they hold the seed with their feet and peck it open. Many seeds are hidden in trees for a later snack.

Tufted titmice couples defend their territories year-round. That's why you usually see only one or two titmice at your feeder at once. If you see more, they're likely kids joining mom and pop for dinner.

hite-Breasted Kuthatch



Bird Feeder Faves: Suet, sunflower seeds, peanuts **Wild Menu:** Insects, acorns, seeds

Though small, nuthatches are feisty. They often swing their long, sharp beaks like swords to drive away other birds. When this happens, only woodpeckers hold their ground.

Nuthatches love to swipe peanuts and stash them away to eat before bedtime. Seeds with shells require too much effort to crack right before bed, so they are usually eaten on the spot.

8

Marca pine cone oira freder

irds search for seeds, berries, and other foods all winter long. By February, pickings are slim, and feathered foragers have a tough time finding enough to eat. Help out by making a bird feeder. You'll need pine cones, yarn, peanut butter, and bird seed.

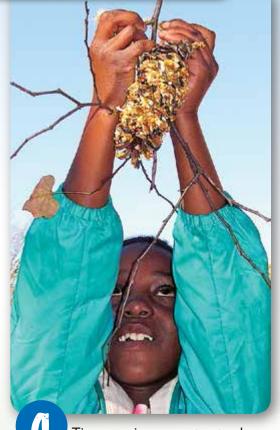
Gather a bunch of pine cones. Tie yarn or twine around the top of each one.



Use a butter knife or Popsicle stick to cover the cones with peanut butter. Fill all the little spaces.



Pour birdseed into a small tub or cake pan. Roll the cones through the seed. Press firmly so plenty of seed sticks to the peanut butter. Keep rolling until each pine cone is completely covered.



Tie your pine cones to sturdy branches where you can keep an eye on them. In no time, hungry birds will arrive for a feast! When your pine cones are picked clean, reuse them to make new bird feeders.

To learn more about backyard birds and what to feed them, visit on.mo.gov/1lw0f4L.









THE STRUCGLE TO SURVIVE ISN'T ALWAYS A FAIR FIGHT

Illustrated by David Besenger

High-Energy Fuzz Ball

Shrews hunt constantly and burn energy so quickly that if they miss one meal they might die. When stressed, a shrew's tiny heart can beat up to 1,300 times per minute.

Sonar Rover

Due to poor eyesight, a shrew sometimes just bumps right into its next meal. However, it can use high-pitched chirps, like a bat, to locate prey.

Tiny but Toxic

A shrew paralyzes prey with its fanglike teeth and poisonous saliva. It packs enough venom to kill 200 mice.

Mouse Missile

A deer mouse can zip along on just its hind feet, dragging its tail for balance. They've been clocked at 8 feet per second.

Hidden = Alive

To stay out of sight, deer mice often use tunnels and runways through tall grasses made by other mice and shrews. For a mouse, staying hidden means staying alive.

AND THE WINNER IS...

In frigid winter weather, STRIPED SKUMKS curl up for power naps that can last several

weeks. During these super-sized slumbers, the musky mammals burn fat like marathon runners. Female skunks, in particular, may drop 40 percent of their weight.

OZARK WITCH HAZEL zooms

to bloom first in Missouri most years. In mid-January — often while snow still blankets the ground — the shrubby trees unfurl frilly, flashy flowers to lure any flies, moths, or bees that may be buzzing about.



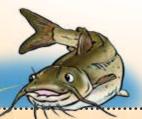
Although they're not much bigger than a hummingbird, GOLDEN-CROWNED KINGLETS can survive



temperatures more than 40 degrees below zero. The hardy brrrds often huddle together on chilly nights to stay warm.

Every inch of a CATFISH'S slippery skin, from its whiskery barbels to the tip of its tail, is covered with

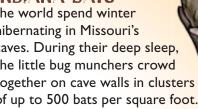
taste buds. But this sense-sational skin isn't made to savor flavors. It helps a catfish nab snacks in dark, murky water.



YOUR GUIDE TO ALL THE AND UMBELIEVABLE STUFF THAT GOES ON IN NATURE

Over a third of all the INDIANA BATS in

the world spend winter hibernating in Missouri's caves. During their deep sleep, the little bug munchers crowd together on cave walls in clusters of up to 500 bats per square foot.



MORTHERM SAW-WHET OWLS

normally eat mice, but they occasionally prey on birds — sometimes birds bigger than themselves. They are known to take robins and even pigeons, which weigh three times more than a

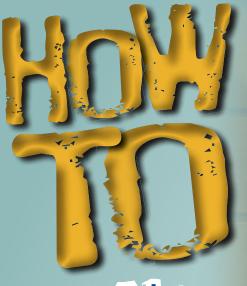




Why doesn't a DUCK'S foot freeze in icy water? Plumbing. As warm blood flows down a duck's leg, it passes alongside cold blood returning from the foot. This cools the blood down so it doesn't lose much heat but keeps it warm enough to avoid freezing.

Next time you complain about having to eat broccoli, consider the COTTORTALL. Rabbits eat their own droppings. By having food pass through their digestive tracts twice, bunnies absorb more nutrients.





Build a Wren House

rens are divas of the bird world — though small, they have oversized attitudes and sing loud, cheerful songs. Build a wren house this winter so you'll be ready for the show when spring arrives.

WHAT YOU WILL NEED

- 1 X 6 cedar or untreated pine board at least 3 feet long
- An adult with a saw
- Tape measure
- Pencil
- Drill
- 1 1/8-inch drill bit
- Countersink drill bit
- Screwdriver
- 15/8-inch exterior wood screws (about 30)
- Two small eye screws
- Short length of cord or wire



43/4"

5 1/2"

HERE'S WHAT YOU DO

With an adult, measure and cut the first piece of the wren house. Measure from the new end to cut the next piece. Repeat for all pieces.

Drill a 11/8-inch hole in the front piece.

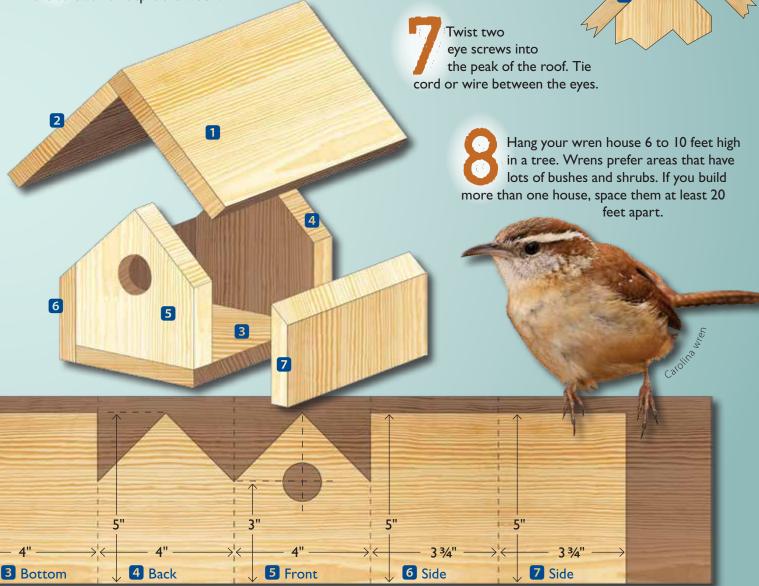
Cut the top of each side at a 45 degree angle.

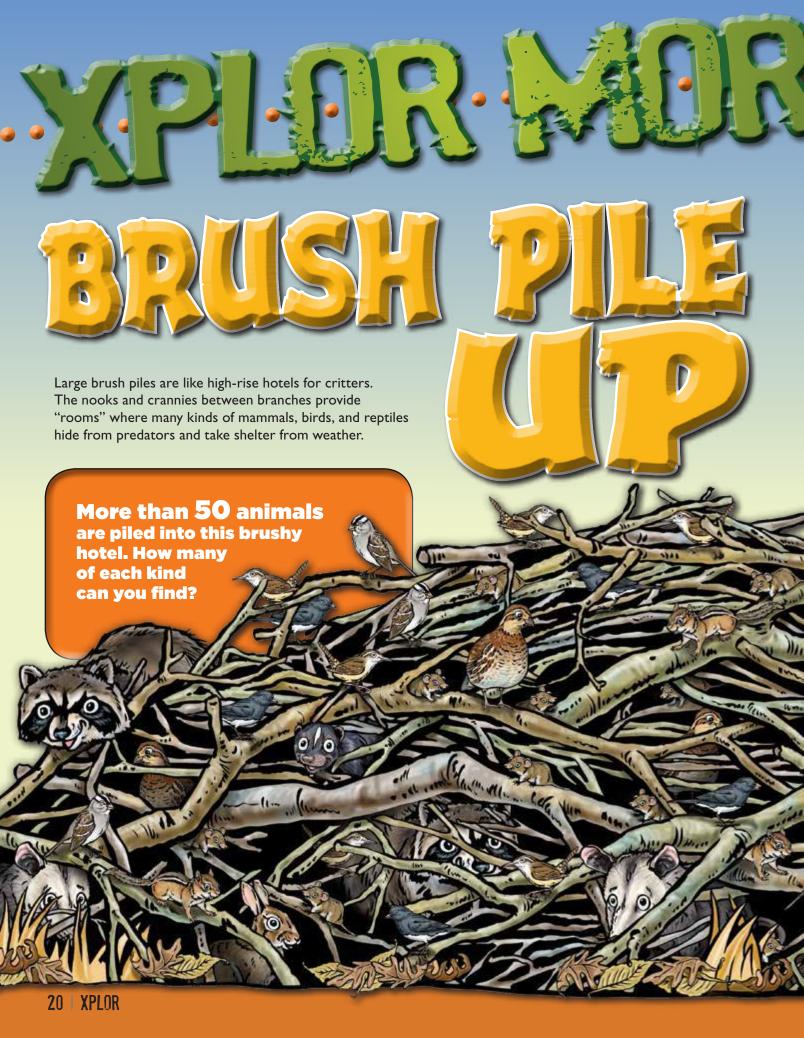
Attach the front and back to the bottom with screws. Drill pilot holes with a countersink bit so the screws don't split the wood.

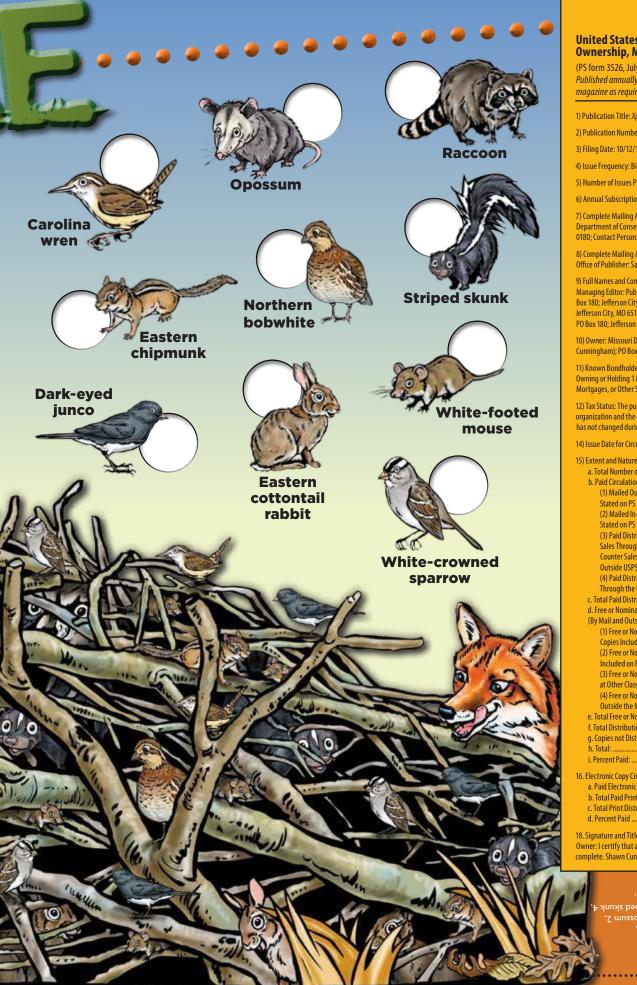
Attach the sides.

Attach the roof pieces. Start with the smaller roof (a). Line up its edge with the peak (b).

Make sure the larger roof (c) lines up with the face of the small roof.







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> White-crowned sparrow 6 White-footed mouse 15 Eastern cottontail rabbit 4, Northern bobwhite 4, Oposs Dark-eyed junco 8, Answer: Carolina wren 8,

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FREE TO MISSOURI HOUSEHOLDS

ANSWER TO IS FROM PAGE 3



Owl you be my Valentine? Barn owls' heart-shaped, feathered faces funnel sounds to their super-sensitive ears, which are the best of any animal ever tested. They can nab mice and voles in the dark and from under tall grass. Barn owls' large eyes are twice as sensitive as human eyes, too. These sensational senses make barn owls excellent mousers. They eat about four every night — that's 1,460 per year!